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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,817	12/08/2003	Yuji Abuku	00862.023347	9256
5514	7590	07/15/2004	EXAMINER	
FITZPATRICK CELLA HARPER & SCINTO 30 ROCKEFELLER PLAZA NEW YORK, NY 10112			SHECHTMAN, SEAN P	
		ART UNIT	PAPER NUMBER	
		2125		

DATE MAILED: 07/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/728,817	ABUKU, YUJI
Examiner	Art Unit	
Sean P. Shechtman	2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 11 March 2004.
- 2a) This action is **FINAL**. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-18 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 08 December 2003 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
 Paper No(s)/Mail Date _____.
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____.
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____.

DETAILED ACTION

1. Claims 1-18 are presented for examination.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

3. Figure 7 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

4. The disclosure is objected to because of the following informalities:

Referring to page 9, line 27, examiner respectfully asserts that the term EWS should be rephrased engineering workstation at least once in the instant specification.

Appropriate correction is required.

5. The use of the trademarks Internet Explorer, Microsoft, Adobe, XML (See for example, pages 16-17 of the instant specification) has been noted in this application. It should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

6. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code (See Fig. 10-11, Fig. 17-18, and page 38, lines 15-25 of the instant specification). Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

7. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Information processing method and apparatus used in an exposure system.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites the limitation "the parameter information" in lines 6, 8, and 12. Claim 1 recites the limitation "the control" in lines 8 and 11. Claim 2 recites the limitation "the parameter information" in line 3. Claim 3 recites the limitation "the information obtained by said converting unit" in lines 3-4. Claim 5 recites the limitation "the parameter information" in lines 3-4. Claim 9 recites the limitation "the parameter information" in lines 4-10. Claim 9 recites the

limitation "the control based on the parameter information" in lines 6-7. Claim 10 recites the limitation "the parameter information" in lines 7-8. Claim 10 recites the limitation "an apparatus according to claim 10" in line 1 of claim 10. Claim 10 recites the limitation "said output unit" in line 2. Claim 10 recites the limitation "the parameter information" in line 3. Claim 10 recites the limitation "the format information" in line 3. Claim 12 recites the limitation "the software" in lines 1-2. Claim 13 recites the limitation "the software" in lines 1-2. Claim 14 recites the limitation "the control parameter" in lines 2-3. Claim 14 recites the limitation "the exposure system" in line 3. Claim 16 recites the limitation "an apparatus according to claim 11" in line 1. Claim 18 recites the limitation "the parameter information" in 7. There is insufficient antecedent basis for these limitations in the claim.

Claims 3 and 8 recite the limitation "the information to be informed" in lines 2-3 and lines 1-2 respectively, however, claim 1, from which claims 3 and 8 depend, recites the limitation of "the parameter information and format information required to inform a user". Therefore, it is unclear what information is intended to be claimed as "the information".

Examiner respectfully submits that it is not clear which claims claims 10-17 depend from or do not depend from.

9. Due to the number of 35 USC § 112 rejections, the examiner has provided a number of examples of the claim deficiencies in the above rejections, however, the list of rejections may not be all inclusive. Applicant should refer to these rejections as examples of deficiencies and should make all the necessary corrections to eliminate the 35 USC § 112 problems and place the claims in proper format.

10. Due to the vagueness and a lack of clear definition of the terminology and phrases used in the specification and claims, the claims have been treated on their merits as best understood by the examiner.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

11. Claims 10-18 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Applicant's Admitted Prior Art (AAPA) (see Fig. 7 and page 1, line 10 – page 2, line 14 of the instant specification).

12. Claims 10-18 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 6,128,403 to Ozaki.

Referring to claims 10 and 18, Ozaki teaches a method and apparatus adapted to an information processing apparatus used for an exposure system (Col. 5, lines 11-30; Col. 2, line 7), said method and apparatus comprising:

generating format information based on a control parameter (Col. 5, lines 11-30; Col. 5, lines 34-35); wherein the format information is required to inform a user with respect to the control parameter used in the exposure system (Col. 6, lines 1-9); and outputting the parameter

information and the format information out of the apparatus (Col. 6, lines 7-9; Col. 6, lines 31-34; Fig. 1, element 4).

Ozaki clearly teaches data is collected and processed from observing means, wherein the data to be stored includes, among other things, a processing recipe and processing parameter, wherein the processes include, among other things, photolithography (Col. 5, lines 11-30; Col. 2, line 7). Ozaki clearly teaches the data file format of the stored data can be an HTML generation program (Col. 5, lines 34-35).

Referring to claim 10, Ozaki teaches an apparatus according to claim 10, wherein said output unit outputs software for editing the parameter information *or* the format information (Col. 8, line 32-45; Col. 9, lines 54-57). Referring to claim 12, Ozaki teaches an apparatus according to claim 10, wherein the software includes a program (Col. 8, lines 32-45; Col. 9, lines 54-57). Referring to claim 13, Ozaki teaches a apparatus according to claim 10, wherein the software is described a markup language *or* a script language (Col. 8, lines 32-45; Col. 9, lines 54-57).

Referring to claim 14, Ozaki teaches a apparatus according to claim 10, further comprising a reception unit which receives the control parameter from the exposure system (Col. 5, lines 11-30; Col. 2, line 7).

Referring to claim 15, Ozaki teaches a apparatus according to claim 10, wherein said output unit transmits the parameter information and the format information to another information processing apparatus (Fig. 3; Col. 8, lines 36-37). Referring to claim 16, Ozaki teaches a apparatus according to claim 11, further comprising a transmitting unit which transmits a control parameter edited using the software to the exposure system (Col. 8, lines 36-37).

13. Claims 10-16 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pat. No. 6,629,002 to Holder.

Referring to claims 10 and 18, Holder teaches a method and apparatus adapted to an information processing apparatus used for an exposure system (Col. 1, lines 24-28; Col. 2, lines 51-63), said method and apparatus comprising:

generating format information based on a control parameter; wherein the format information is required to inform a user with respect to the control parameter used in the exposure system (Col. 7, lines 1-6; Col. 9, lines 15-21; Col. 8, lines 54-64); and

outputting the parameter information and the format information out of the apparatus (Col. 7, lines 4-5).

Referring to claim 10, Holder teaches an apparatus according to claim 10, wherein said output unit outputs software for editing the parameter information *or* the format information.

Referring to claim 12, Holder teaches an apparatus according to claim 10, wherein the software includes a program. Referring to claim 13, Holder teaches a apparatus according to claim 10, wherein the software is described a markup language *or* a script language (Col. 5, lines 40-67).

Referring to claim 14, Holder teaches a apparatus according to claim 10, further comprising a reception unit which receives the control parameter from the exposure system (Col. 6, lines 18-28).

Referring to claim 15, Holder teaches a apparatus according to claim 10, wherein said output unit transmits the parameter information and the format information to another information processing apparatus (Fig. 1).

Referring to claim 16, Holder teaches a apparatus according to claim 11, further comprising a transmitting unit which transmits a control parameter edited using the software to the exposure system (Col. 5, lines 40-67).

14. Claims 1-7 and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Pub. No. 2003/0025732 to Prichard.

Referring to claims 1 and 9, Prichard teaches an information processing method and apparatus for processing information of a control parameter used in an exposure system (Page 2, paragraphs 29-30), comprising:

acquiring, from the exposure system, the parameter information and format information required to inform a user with respect to the control based on the parameter information (Page 4, paragraph 47); and

generating information to be informed to a user with respect to the control based on the parameter information and the format information (Page 4, paragraph 47).

Referring to claim 2, Prichard teaches an apparatus according to claim 1, wherein said generation unit includes a converting unit which converts the parameter information into information compliant with the format information (Page 1, paragraph 36).

Referring to claim 3, Prichard teaches an apparatus according to claim 2, wherein said generation unit generates the information to be informed based on the information obtained by said converting unit and the format information (Page 3, paragraph 36).

Referring to claim 4, Prichard teaches an apparatus according to claim 1, wherein said generation unit includes a condition setting unit which sets image display condition (Page 2, paragraph 32).

Referring to claim 5, Prichard teaches an apparatus according to claim 1, Prichard wherein said acquisition unit acquires software for editing the parameter information *or* the format information. Referring to claim 6, Prichard teaches an apparatus according to claim 5, wherein the software includes a program. Referring to claim 7, Prichard teaches an apparatus according to claim 5, wherein the software is described a markup language *or* a script language (Page 1, paragraph 17).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 1-7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,629,002 to Holder in view of U.S. Pat. No. 6,711,731 to Weiss (Previously, U.S. Pub. No. 2002/0095644 to Weiss).

Referring to claims 1 and 9, Holder teaches an information processing method and apparatus for processing information of a control parameter used in an exposure system (Col. 1, lines 24-28; Col. 2, lines 51-63 of '002), comprising:

acquiring the parameter information, from the exposure system, and format information, from the smart gateway, required to inform a user with respect to the control, based on the parameter information (Col. 7, lines 1-6; Col. 9, lines 15-20 of '002); and

generating information to be informed to a user with respect to the control based on the parameter information and the format information (Col. 7, lines 1-6; Col. 9, lines 15-21; Col. 8, lines 54-64 of '002).

Holder teaches the processor at the smart gateway receives a response from the fabrication machine and generates a second user interface based on the received response (Col. 7, lines 1-6 v), wherein the generating of the user interface is accomplished via processing at the smart gateway (Col. 5, lines 29-35 of '002). Holder teaches that a dongle in communication with the smart gateway is attached to a computer at the fab machine (Col. 3, lines 41-52 of '002).

Holder fails to teach that format information is acquired from the exposure system, namely, Holder fails to teach that the fab machine uses the computer at the fab to generate a user interface instead of the computer at the smart gateway.

However, referring to claims 1 and 9, Weiss teaches analogous art, wherein web based tool control in a semiconductor fabrication facility comprises:

Means for obtaining process data from fab tools, wherein a data capture module couples a corresponding fab tool to a fab host, and wherein the data transferred between the fab host and the fab tool is in a first data format and includes current process data (Col. 7, lines 19-34 of '731).

Therefore, it would have been obvious to one of ordinary skill in the art at the time that the invention was made to combine the teachings of Weiss with the teachings of Holder.

One of ordinary skill in that art would have been motivated to combine these references because Weiss teaches an interconnection system at a semiconductor fab, wherein data is immediately available in real time on all aspects of the operation of the fab facility, and wherein engineers can browse, via the internet, the various process tools from any location. Furthermore, host communications to and from the tools can be monitored without affect on factory operations. Further still, the interface is compatible with standard process tools and factory automation or management software systems (Col. 1, line 67 – Col. 2, line 14 of '731).

Referring to claim 2, Holder teaches an apparatus according to claim 1, wherein said generation unit includes a converting unit which converts the parameter information into information compliant with the format information (Col. 5, lines 29-35 of '002). Referring to claim 3, Holder teaches an apparatus according to claim 2, wherein said generation unit generates the information to be informed based on the information obtained by said converting unit and the format information (Col. 5, lines 29-35 of '002).

Referring to claim 4, Holder teaches an apparatus according to claim 1, wherein said generation unit includes a condition setting unit which sets image display condition (Col. 6, lines 46-48 of '002).

Referring to claim 5, Holder teaches an apparatus according to claim 1, wherein said acquisition unit acquires software for editing the parameter information *or* the format information. Referring to claim 6, Holder teaches an apparatus according to claim 5, wherein the

software includes a program. Referring to claim 7, Holder teaches an apparatus according to claim 5, wherein the software is described a markup language *or* a script language (Col. 5, lines 40-67 of '002).

16. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,629,002 to Holder in view of U.S. Pat. No. 6,711,731 to Weiss (Previously, U.S. Pub. No. 2002/0095644 to Weiss), as applied to claim 1 above, and further in view of U.S. Pat. No. 6,314,548 to Suzuki. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,629,002 to Holder as applied above, and further in view of U.S. Pat. No. 6,314,548 to Suzuki.

Referring to claims 8 and 17, Holder teaches all of the limitations above, however, Holder fails to teach a apparatus above, wherein information to be informed based on the format information includes information about a shot layout *or* a sample shot.

However, referring to claims 8 and 17, Suzuki teaches analogous art, wherein a apparatus above, wherein information to be informed based on the format information includes information about a shot layout *or* a sample shot (Col. 2, lines 16-64 of '548).

Therefore, it would have been obvious to one of ordinary skill in the art at the time that the invention was made to further modify the teachings of Holder with the teachings of Suzuki.

One of ordinary skill in that art would have been motivated to combine these references because Suzuki teaches a computer readable medium storing a program to execute automatic calculations for a chip layout which assures maximum yield for a wafer and minimum exposing

work time by the exposing device. Furthermore, Suzuki teaches a lost cost manufacture per chip can be realized and the exposing process can be performed more efficiently (Col. 14, lines 4-16 of '548).

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sean P. Shechtman whose telephone number is (703) 305-7798. The examiner can normally be reached on 9:30am-6:00pm, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P. Picard can be reached on (703) 308-0538. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

SPS

Sean P. Shechtman

July 7, 2004



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